Patent Claims

1. A cleaning device for process gases particularly of a reflow soldering system, comprising a plurality of cleaning chambers (15) containing a cleaning liquid for said process gas, each of said cleaning chambers being adapted to be flown through via a supply line (12) for the contaminated process gas and via a discharge line (13) for the cleaned process gas,
characterized in
that the cleaning chambers are each formed by modules of which such a great number is arranged to be flown through in parallel that the required throughput of process gas is achieved, and of which such a great number is arranged to be flown through in successive order that the required degree of purity is achieved for the process gas.

2. The cleaning device according to claim 1,
characterized in
that modules having different operative principles of deposition are connected one after the other in series.

3. The device according to claim 1 or 2,
characterized in
that a flow path for the cleaning liquid extends through the series-connected modules in such a manner that the direction of flow of the cleaning liquid is opposite to the direction of flow of the process gas.

4 The cleaning device according to any one of the preceding claims,
characterized in
that cleaning liquids with different cleaning properties are provided in the cleaning chambers (15) of the modules (31) which are arranged to be flown through in successive order.

5. The cleaning device according to any one of the preceding claims, characterized in
that at least part of the cleaning chambers (15) contains a corresponding bath consisting of the cleaning liquid (16), the supply line (12) terminating each time below the liquid level of the bath in said bath.

6. The cleaning device according to any one of the preceding claims, characterized in
that at least part of the cleaning chambers (15) contains at least one deposition wall (25) on the surface of which a film (28) of the cleaning liquid is positioned.

7. The cleaning device according to claim 6,
characterized in
that the deposition walls (25) are arranged perpendicular or with a slope in the cleaning chambers (15) and in the area of top deposition-wall edges (26) obtained due to said arrangement, supply means (27) for the cleaning liquid are arranged that are directed thereto.

8. The cleaning device according to any one of the preceding claims, characterized in that at least one respective injection opening (29) for the cleaning liquid (16) is directed into at least part of the cleaning chambers (15).

9. The cleaning device according to any one of the preceding claims, characterized in that at least part of said cleaning chambers (15) comprises a respective outlet (20) which is connected to a clarifying device (18) for the cleaning liquid.